

CHECKLIST TO DESIGNATE AREAS OF EVALUATION FOR REQUESTS FOR PROPOSAL (RFP)

MDOT PROJECT MANAGER Doug adelman			JOB NUMBER (JN) 88496C	CONTROL SECTION (CS) 39082
DESCRIPTION IF NO JN/CS Signal Modernization and Interconnect Design in Kalamazoo County.				
MDOT PROJECT MANAGER: Check all items to be included in RFP. WHITE = REQUIRED GRAY SHADING = OPTIONAL			CONSULTANT: Provide only checked items below in proposal.	
Check the appropriate Tier in the box below				
<input checked="" type="checkbox"/> TIER I (\$25,000-\$99,999)	<input type="checkbox"/> TIER II (\$100,000-\$250,000)	<input type="checkbox"/> TIER III (>\$250,000)		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Understanding of Service	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Innovations</i>	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<i>Safety Program</i>	
N/A	<input type="checkbox"/>	<input type="checkbox"/>	Organization Chart	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Qualifications of Team	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Past Performance	
Not required as part of official RFP	Not required as part of official RFP	<input type="checkbox"/>	Quality Assurance/Quality Control	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location. The percentage of work performed in Michigan will be used on all contracts unless the contract is for on-site inspection, then location should be scored for the on-site inspection.	
N/A	N/A	<input type="checkbox"/>	Presentation	
N/A	N/A	<input type="checkbox"/>	Technical Proposal (if Presentation is required)	
3 pages including cover sheet (No Resumes)	7 pages	19 pages	Total maximum pages for RFP not including key personnel resumes	

REQUEST FOR PROPOSAL

The Michigan Department of Transportation (MDOT) is seeking professional services for the project contained in the attached scope of services.

If your firm is interested in providing services, please indicate your interest by submitting a Proposal, Proposal/Bid Sheet or Bid Sheet as indicated below. The documents must be submitted in accordance with the latest "Consultant/Vendor Selection Guidelines for Service Contracts" and "Guideline for Completing a Low Bid Sheet(s)", if a low bid is involved as part of the selection process. **Referenced Guidelines are available on MDOT's website under Doing Business > Requests for Proposals.**

RFP SPECIFIC INFORMATION

☒ BUREAU OF HIGHWAYS ☐ BUREAU OF TRANSPORTATION PLANNING ** ☐ OTHER

THE SERVICE WAS POSTED ON THE ANTICIPATED QUARTERLY REQUESTS FOR PROPOSALS

☒ NO ☐ YES DATED _____ THROUGH _____

<input checked="" type="checkbox"/> Prequalified Services – See page <u>4</u> of the attached Scope of Services for required Prequalification Classifications.	<input type="checkbox"/> Non-Prequalified Services - If selected, the vendor must make sure that current financial information, including labor rates, overhead computations, and financial statements, if overhead is not audited, is on file with MDOT's Office of Commission Audits. This information must be on file for the prime vendor and all sub vendors so that the contract will not be delayed.
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☒ **Qualifications Based Selection** – Use Consultant/Vendor Selection Guidelines

For all Qualifications Based Selections, the selection team will review the information submitted and will select the firm considered most qualified to perform the services based on the proposals. The selected vendor will be contacted to confirm capacity. Upon confirmation, that firm will be asked to prepare a priced proposal. Negotiations will be conducted with the firm selected.

**** For RFP's that originate in Bureau of Transportation Planning only**, a price proposal must be submitted at the same time as, but separate from, the proposal. Submit directly to the Contract Administrator/Selection Specialist, Bureau of Transportation Planning (**see address list, page 2**). The price proposal must be submitted in a sealed manila envelope, clearly marked in large red letters **"PRICE PROPOSAL – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address **MUST** be on the front of the envelope. The price proposal will only be opened for the highest scoring proposal. Unopened price proposals will be returned to the unselected vendor(s). Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

For a cost plus fixed fee contract, the selected vendor must have a cost accounting system to support a cost plus fixed fee contract. This type of system has a job-order cost accounting system for the recording and accumulation of costs incurred under its contracts. Each project is assigned a job number so that costs may be segregated and accumulated in the vendor's job-order accounting system.

☐ **Qualifications Review / Low Bid** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions for additional information.

For Qualification Review/Low Bid selections, the selection team will review the proposals submitted and post the date of the bid opening on the MDOT website. The notification will be posted at least two business days prior to the bid opening. Only bids from vendors that meet proposal requirements will be opened. The vendor with the lowest bid will be selected. The selected vendor may be contacted to confirm capacity.

☐ **Best Value** - Use Consultant/Vendor Selection Guidelines. See Bid Sheet Instructions below for additional information. The bid amount is a component of the total proposal score, not the determining factor of the selection.

☐ **Low Bid** (no qualifications review required - no proposal required.) See Bid Sheet Instructions below for additional instructions.

BID SHEET INSTRUCTIONS

A bid sheet(s) must be submitted in accordance with the "Guideline for Completing a Low Bid Sheet(s)" (available on MDOT's website). The Bid Sheet is located at the end of the Scope of Services. Submit bid sheet(s) separate from the proposal, to the address indicated below. The bid sheet(s) must be submitted in a sealed manila envelope, clearly marked in large red letters **"SEALED BID – TO BE OPENED ONLY BY SELECTION SPECIALIST."** The vendor's name and return address **MUST** be on the front of the envelope. Failure to comply with this procedure may result in your bid being opened erroneously by the mail room.

PROPOSAL SUBMITTAL INFORMATION

REQUIRED NUMBER OF COPIES FOR PROJECT MANAGER 5	PROPOSAL DUE DATE 2/20/07	TIME DUE 4:00 p.m.
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PROPOSAL AND BID SHEET MAILING ADDRESSES

Mail the multiple proposal bundle to the MDOT Project Manager or Other indicated below.

☒ MDOT Project Manager ☐ MDOT Other

Doug Adelman, Signal Design Supervisor
Traffic & Safety Division, MDOT
Murray D. Van Wagoner Building
P.O. Box 30050, Lansing Michigan 48909

Mail one additional stapled copy of the proposal to the Lansing Office indicated below.

Lansing Regular Mail	OR	Lansing Overnight Mail
<input checked="" type="checkbox"/> Secretary, Contract Services Div - B225 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Secretary, Contract Services Div - B225 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833
<input type="checkbox"/> Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation PO Box 30050 Lansing, MI 48809		Contract Administrator/Selection Specialist Bureau of Transportation Planning B340 Michigan Department of Transportation 425 W. Ottawa Lansing, MI 48833

GENERAL INFORMATION

Any questions relative to the scope of services must be submitted by e-mail to the MDOT Project Manager. Questions must be received by the Project Manager at least four (4) working days prior to the due date and time specified above. All questions and answers will be placed on the MDOT website as soon as possible after receipt of the questions, and at least three (3) days prior to the RFP due date deadline. The names of vendors submitting questions will not be disclosed.

MDOT is an equal opportunity employer and MDOT DBE firms are encouraged to apply. The participating DBE firm, as currently certified by MDOT's Office of Equal Opportunity, shall be listed in the Proposal

MDOT FORMS REQUIRED AS PART OF PROPOSAL SUBMISSION

- 5100D – Request for Proposal Cover Sheet
- 5100G – Certification of Availability of Key Personnel

(These forms are not included in the proposal maximum page count.)

SCOPE OF WORK FOR SIGNAL MODERNIZATION AND INTERCONNECT DESIGN IN KALAMAZOO COUNTY

CONTROL SECTION: 39082

JOB NUMBER: JN 88496C

PROJECT DESCRIPTION:

Signal Modernization and Interconnect Design for Eleven Signalized Intersections in the Kalamazoo County.

PROJECT LOCATIONS:

- | | |
|------------------|--|
| 1) 39082-01-010 | M-43 (Gull) @ Sprinkle Road, Comstock Township, Kalamazoo County |
| 2) 39082-01-020 | M-43 (Gull) @ Meijer, Gull Run Apartment Drive, City of Kalamazoo, Kalamazoo County |
| 3) 39082-01-017 | M-43 (Gull) @ G Avenue, Richland Township, Kalamazoo County |
| 4) 39082-01-003 | M-43 (Gull) @ M-43 (Riverview), City of Kalamazoo, Kalamazoo County |
| 5) 39082-01-008 | M-43(Gull) @ Nazareth Road, City of Kalamazoo, Kalamazoo County |
| 6) 39082-01-022 | M-43 (Gull) @ Gull Road Elementary School (East Drive), City of Eastwood, Kalamazoo county |
| 7) 39082-01-016 | M-43 (Gull) @ Brook Street, City of Eastwood, Kalamazoo County |
| 8) 39082-01-009 | M-43 (Gull) 2 Shaffer Road & Bixby Road, City of Eastwood, Kalamazoo County |
| 9) 39082-01-002 | M-43 (Riverview) @ M-43 (Michigan), City of Kalamazoo, Kalamazoo County |
| 10) 39082-01-102 | M-43 (Michigan) @ Mills street, City of Kalamazoo, Kalamazoo County |
| 11) 39082-01-001 | M-43 (Michigan) @ I-94BL (Kings HWY), City of Kalamazoo, Klamazoo County |

Doug Adelman
Traffic and Safety Support Area
Michigan Department of Transportation
Murray D. Van Wagoner Building
P.O. Box 30050
Lansing, MI 48909
Ph: 517- 373-2363
Fax: 517- 373-2330
E-mail: adelmand@michigan.gov

PRIMARY PREQUALIFICATION CLASSIFICATION:

Traffic Signal Design

DBE REQUIREMENT:

There is no Disadvantage Business Enterprise (DBE) requirement for this service.

SCOPE OF WORK:

This project consists of Interconnect and Signal Modernization Design which consists of the design for upgrading of the existing traffic signal equipment including but not limited to traffic signal controllers ("EPAC" type controllers), traffic and pedestrian heads, pedestrian push button actuated (if necessary), embedded loop and/or camera design (if necessary), illuminated case signs, span wire, signal support poles and supporting structures (if necessary). Radio Interconnect Design (if necessary), Replace all existing traffic and pedestrian signal heads crossing all legs with 12" heads. The intersection # 3, 4, 5, 7, 8 & 9 only require Interconnect Design, intersection # 6 requires Actuation and Interconnect Design and the intersections # 1, 2, 10 & 11 do require Signal Modernization and Interconnect design.

Note: First option for signal design should be **"Box Span" design**. The signal designs should incorporate the use of LED technology. The consultant identifies and notes the existing posted speed limit on all approaches of the intersection(s) on the plan. Design for Radio Interconnect requires performing the Radio Survey and submitting the Signal Radio Survey Form. The **Signal Radio Survey Form** can be found in the **"Traffic Consultant Files"** at the following website:

<http://mdotwas1.mdot.state.mi.us/public/tands/plans.cfm>

The consultant is responsible for scheduling a kick off meeting for this project and notifying the MDOT staff of the date. The existing drawing and Layout Request Forms for the Eleven (11) signalized locations will be provided to the consultant at the kick off meeting.

The funding for the design of all eleven location are from our general 2007 signal design JN 88496C. For construction purposes these eleven signalized intersections are divided into two groups based on their letting date. The first eight design locations (number 1 through 8), having letting date of August 2007 will be installed under the Signal construction contract, using 2007 CMAQ fund (JN--TBD). The remaining six locations (number 9 through 11), having letting date of 2008, will be installed under a different signal construction contract, using 2008 CMAQ fund (JN--TBD). Consequently there will be two separate proposal.pdf files, two sets of details, and two sets of special provisions required for the two separate letting packages. The plan completion date for the design of the first eight locations (#1 through 8) is May 18, 2007 and for the remaining three locations (#9 through 11) will be August 27, 2007 due to having two different letting date for each group.

The designer shall arrange for an on-site design meeting with, MDOT Southwest Region Electrician (Brooks Gregory), MDOT Lansing Signals Unit, Kalamazoo TSC Traffic & Safety Engineer (Michael Bippely), Kalamazoo TSC Utility/Permit Engineer (Steven Serdel), Kalamazoo TSC Development Engineer (Patrick Gibbons), to review the proposed modernization design plans.

Utility coordination for this project will be done by MDOT staff. MDOT staff will distribute the base plans (20%-30%) provided by the consultant to all the utility companies in the area. The consultant should incorporate all the utility information received into the design plans. The consultant should anticipate attending a utility coordination meeting and possibly an on-site field meeting (if needed) with the affected utility companies in the area.

General Requirements:

Design and develop traffic signal contract plans, proposal package, engineering documents, and related work necessary for new installation or modernization of electronic traffic signal control devices to be accomplished by contract bid letting. New traffic signal work typically includes installation of: signal support poles and/or pedestals, span wire, traffic and pedestrian signals, and traffic signal controller. Modernization traffic signal work typically includes the replacement, as needed, of: signal support poles and/or pedestals, span wire (if appropriate), traffic and pedestrian signals, traffic loops, handholes, and traffic signal control equipment.

If steel poles are required for a location, soil borings need to be taken. The first step is to request soil borings from the Region soils engineer (provide the proposed pole locations). The Region soils engineer will inform the consultant if existing soil boring data is available, or if the Region soils engineer can perform the borings, or if the consultant must perform the soil borings.

If it is determined during construction, the design **is not constructible** due to consultant design error; the signal design consultant will be responsible for correcting the design at no additional cost to MDOT. If the constructability is based on changes made by MDOT, the consultant will be compensated.

Justification for Use of Consultant:

This project was reviewed and scheduled to be included in the 2007 FY Call-for-Projects. This work load is beyond the staff time available within the unit. Pre-qualified traffic signal design professional services are required to meet the commitment to execute this project for this fiscal year and obligate the funds available.

CONSULTANT RESPONSIBILITIES:

Specific Requirements:

1. Perform design service including the design and preparation of base plans, preliminary (75%) plans, final plans, "E proposal" package, specifications, wiring diagrams, interconnect drawings, bills of materials, measurement and payment items, and cost estimates for all construction work for this project, including necessary alterations to power, lighting, and interconnect facilities. Traffic signal work may include installation of: signal support poles and/or pedestals, span wire, traffic and pedestrian signals, and traffic signal controller, traffic loops, handholes, wireless interconnect, and video detection.

2. Perform Design Service for drilled shaft foundations as required including soil boring information, identification of any suspected contamination of the boring site, and preliminary foundation investigation. (Refer to MDOT's website.) The following information must be provided for proper analysis of strain pole foundations:
 - Accurate pole location information
 - Soil classification
 - Standard penetration values every 2.5 feet (750 mm) extending 20 feet (6.1 m) below the ground surface elevation
 - Ground water table elevation
 3. The Consultant shall contact the Region Materials/Testing Engineer or Soils Engineer before proceeding with any geotechnical work and submit the results of the preliminary subsurface investigation for their review, approval, and recommendations for foundation design.
 4. In the performance of design service, govern all project design and plan work by the applicable codes, standards, and practices of the Michigan Department of Transportation, hereinafter referred to as the department, and the current *Michigan Manual of Uniform Traffic Control Devices*.
 5. The Consultant shall provide design service for the project locations which are grouped by individual construction contracts on either a region wide, citywide, or countywide basis as shown in Attachment "A1."
 6. Supply all materials necessary for completion of the projects, except as hereinafter described, including incidental prints required.
 7. All documents prepared by the Consultant, including , drawings, estimates, specifications, field notes, investigation studies, etc., are the property of the department.
 8. All plan sheets shall be developed using computer-aided drafting technology. The system shall be Intergraph Microstation, or one that processes data exactly as Intergraph will, no translations or system revisions being necessary by the department.
 9. Refer to Suggested Traffic Signal Design Procedure: MDOT website.
 10. Refer to Requirements for Preliminary Geotechnical Investigations for Signal Foundations: MDOT website.
 11. Plans are to be designed using the 2003 Standard Specifications.
 12. Perform any design/coordination tasks with any railroad company involved within the project limits, including (but not limited to):
 - Determine railroad contact person(s)
 - Complete any applications required by the railroad company to perform the proposed traffic signal work.
- Include related notes and special provisions as required in the proposal.

Task 1: Base Plan Preparation

1. Design and develop contract base plans necessary for new installation or modernization of electronic traffic signal control devices to be accomplished by contract bid letting. Base plans include (but are not limited to):

- a. Field measured road and lane geometry and posted speed limits
- b. Field measured locations of any visible utilities
- c. Proposed types and locations of poles and controller
- d. Proposed traffic and pedestrian signal head types and locations
- e. Proposed pushbuttons, traffic loops, and antennas
- f. Proposed traffic signal removal (if required) and installation plan(s)
- g. Proposed phasing (as required)
- h. POCH diagram for proposed attachments to wood poles (not required for steel pole attachments)

2. If existing or proposed pole locations appear to be outside existing right-of-way, contact Douglas Adelman (517-373-2363), Traffic Signal Unit in Lansing.

Task 1: Deliverables (Base Plans):

1. All traffic signal plan and interconnect sheets (no details required) in the following formats:

- a. One 11x17 paper copy
- b. One 11x17 pdf file
- c. Distribute as follows:
 - i. Traffic Signals Unit: One (1) 11x17 paper copy and pdf file
 - ii. TSC Delivery Engineer: Pdf file
 - iii. TSC Traffic & Safety Engineer: Pdf file
 - iv. TSC Utilities Engineer: Pdf file
 - v. Region Soils Engineer: Pdf file
 - vi. Region Traffic & Safety Engineer: Pdf file
 - vii. Maintaining Agency (if applicable): Pdf file
 - viii. Utility company supplying power: Pdf file

Task 2: Utility Documentation

1. Show existing utility information (as provided by utility companies) on both removal and proposed signal plans.
2. Identify and inform the TSC utility engineer of any utilities for which insufficient information was provided, and identify any utilities that may conflict with the proposed construction.
3. Create a utility notes sheet listing the contact names and phone numbers for each utility having facilities within the project limits.
4. Attend utility coordination meeting(s) as required and document any additional utility information.

Task 3: Preliminary (75%) Plan Preparation

1. Design and develop preliminary (75%) contract plans necessary for new installation or modernization of electronic traffic control devices to be accomplished by contract bid letting. Preliminary (75%) plans include (in addition to base plan information):
 - (a) Location and types of utilities as provided by the utility companies and resulting from utility coordination meeting(s) as required.
 - (b) Utility note sheet listing the contact names and phone numbers for each utility having facilities within the project limits.
 - (c) Separate Interconnect plan sheet (if the scope requires **“Radio Interconnect Design”**)
 - (d) List of Materials and Quantities
 - (e) Wiring diagram
 - (f) Point of Contact Height (POCH) diagram(s)
 - (g) Appropriate note blocks for contact persons, etc.
 - (h) Proper file names, levels, and text sizes
 - (i) Any additional right-of-way required for existing and proposed traffic signal appurtenances
 - (j) Soil boring information including depths, soil description, water level, and depth of foundation (if required)

Task 3: Deliverables Preliminary (75%) Plans:

- 1) All traffic signal plan and interconnect sheets including details.
- 2) All required special provisions, notices to bidders, and specifications in E-Proposal format including a draft progress clause, a draft coordination clause, and a draft special provision for maintaining traffic.
- 3) Checklist of "typical" signal details to be used
- 4) Format of Task 3 Deliverables
 - a) Nine (9) 11x17 paper copies
 - b) One electronic 11x17 pdf file (filename: Job#PLANHALF.pdf)
 - c) One electronic proposal pdf file (filename: Job#PROPOSAL.pdf)
- 5) Distribute Task 3 Deliverables as follows:
 - i) Traffic Signals Unit: Two (2) 11x17 paper copies, and both pdf files
 - ii) TSC Delivery Engineer: One (1) 11x17 paper copy, and both pdf files
 - iii) TSC Traffic & Safety Engineer: One (1) 11x17 paper copy, and both pdf files
 - iv) TSC Utilities Engineer: One (1) 11x17 paper copy, and both pdf files
 - v) Region Soils Engineer: One (1) 11x17 paper copy, and both pdf files
 - vi) Region Traffic & Safety Engineer: One (1) 11x17 paper copy, and both pdf files
 - vii) Lansing Signal Shop: One (1) 11x17 paper copy
 - viii) Maintaining Agency (if applicable): One (1) 11x17 paper copy, and both pdf files
 - ix) Utility company supplying power: One (1) 11x17 paper copy

Task 4: Final Plan and Proposal Preparation

- 1) Incorporate the department's comments on the plans and prepare complete detailed construction final plans, supplemental specifications, special provisions, measurement and payment items, estimates of quantities, span calculations, and engineer's final estimates of cost for all necessary construction and related work included in this project.
- 2) During preparation of the final plans, make such alterations, corrections, and revisions to said plans and supporting materials as are deemed necessary and desirable by the department to insure conformance of plans to good design and standard practices and to have said plans and other material in proper form for receiving bids.
- 3) During preparation of the proposal, work with the appropriate MDOT personnel to obtain final bid proposal documents including progress clause, coordination clause, special provision for maintaining traffic, and utility relocation status (form 2286).
- 4) Attend and provide electronic plans for the OEC meeting. Make any final changes necessary.

Task 4: Deliverables (Final Plans):

1. Upon completion of design services for this project and final approval thereof by the department, deliver to the department final plans, proposal and supporting documents compatible with **current "E- Proposal"** requirements (Refer to MDOT website: E-Proposal Training for MDOT Consultants Document). **All CAD files must be "Intergraph Microstation Version 8 file format" and all PDF files must be Adobe Acrobat version 6.**

Format of Task 4 Deliverables (Final Plans):

- a) Two (2) 11"x17" paper copies of the full plan set. The title sheets must have original stamps and signatures and include a map of the area with work locations identified, a list of locations, and other items as determined by Traffic Signal Unit
- b) Electronic files of all signal plans
- c) Electronic (pdf) 11"x17" plan file (filename: Job#PLANHALF.pdf)
- d) Electronic (pdf) proposal file (filename: Job#PROPOSAL.pdf)
- e) Electronic (pdf) files of all required supporting documents
- f) Editable electronic files of all supporting documents and of all files inserted into proposal document. For example, submit the progress clause as a word document in addition to the progress clause (pdf) which will also be inserted in the proposal pdf.
- g) One set of estimates of cost of construction (8-1/2" x 11" paper copy).
- h) One copy of all design computations as required for use by the department.
- i) Upon request by the department, make available thereto all notes utilized in preparation of the plans, supplemental specifications, and cost estimates.
- j) For all signal contracts, a "txt" or "csv" file compatible with Transport system detailing the materials used
- k) Checklist of "typical" signal details to be used

- l) All required checklists of MDOT Special Provisions extracted per E-Proposal format

Distribute Task 4 Deliverables to Lansing Traffic Signals Unit only as follows:

- i) Two (2) 11x17 paper copies
- ii) All electronic files to be delivered on a compact disk (CD) and sent via email

MDOT RESPONSIBILITIES:

Department Review:

The department will review and comment on the base plan, the preliminary (75%) plan, and the OEC plan submittals. Additional plan review may be required dependent on completeness and accuracy of the plans submitted.

Information services to be provided by the MDOT are:

- Control section numbers
 - Job numbers
 - Contact information for TSC/Region/C&T personnel
 - Appropriate Traffic and Safety Notes
 - Available signal design plans and/or layout drawings for each location
 - Available signal phasing or operational information for each location
 - A Proposal file will be made available to be used as a template
 - **Items available on MDOT's website - www.michigan.gov/mdot**
(Select: Doing Business with MDOT, Traffic & Safety Services, Typical/Details/Guides)
1. Signal Details
 - a. MDOT Typical Signal Construction Detail Sheets
 - b. MDOT Typical Signal Information Note Sheet
 - c. MDOT Typical Signal Legend Sheet
 2. Traffic Consultant Files
 - a. Cell libraries
 - b. Microstation information
 - c. CAD instructions for consultants
 - d. MDOT sample layouts
 - e. MDOT Suggested Traffic Signal Design Procedure

- f. MDOT Requirements for Preliminary Geotechnical Investigations for Signal Foundations
- g. Method of Measurement and Basis of Payment for Signal Contracts
- h. Signal Span Calculation Program (non-disclosure statement required)

3. Traffic Guidelines

- Traffic Signal Head Placement Diagrams

Signal special provisions are now available on the Design IRS menu.

Reference Documents and Standards to be Used:

- *National Manual of Uniform Traffic Control Devices*
- *Michigan Manual of Uniform Traffic Control Devices (MMUTCD)*
- *Michigan Vehicle Code*
- Local and national electrical codes
- MDOT Standards, Specifications, and Construction Details
- MDOT Pay Item Code Book

From this list, the following documents can be ordered from MDOT Financial Services Division (517-335-2519). The Consultant must pay the cost.

- MMUTCD
- MDOT 2003 Standard Specifications for Construction
- MDOT Pay Item Code Book

PROJECT COORDINATION:

Coordinate design service with MDOT, Traffic and Safety Support Area, Traffic Signal Unit, Douglas Adelman (517-373-2363); overhead and/or underground utility/telephone companies; Miss Dig (800-482-7171).

PROJECT SCHEDULE:

Prepare and submit to the department a Gantt Chart schedule for each task and total calendar days for completing the project. The work shall be completed commencing from the date of work authorization to the Consultant. The time allocated for any necessary utility coordination meeting, soil boring investigations, and the department review shall be shown in the Consultant's work schedule. **For scheduling purpose, it is anticipated that this project will begin on February 28, 2007, and the service should be completed by May 18, 2007 for the design of the first eight signalized locations and August 27, 2007 for the design of the remaining three signalized locations.**

PAYMENT SCHEDULE

Compensation for this Scope of Services shall be on an actual cost plus fixed fee basis.

VENDOR PAYMENT:

All invoices/bills for services must be directed to the Department and follow the 'then current' guidelines. The latest copy of the "Professional Engineering Service Reimbursement Guidelines for Bureau of Highways" is available on MDOT's Bulletin Board System. This document contains instructions and forms that must be followed and used for invoicing/billing; payment may be delayed or decreased if the instructions are not followed.

Payment to the Vendor for Services rendered shall not exceed the "Cost Plus Fixed Fee Not to Exceed Maximum Amount" unless an increase is approved in accordance with the contract with the Vendor. All invoices/bills must be submitted within 14 calendar days of the last date of services being performed for that invoice.

Direct expenses will not be paid in excess of that allowed by the Department for its own employees. Supporting documentation must be submitted, with the invoice/bill, for all billable expenses on the Project. The only hours that will be considered allowable charges for this contract are those that are directly attributable to the activities of this project. Hours spent in administrative, clerical, or accounting roles for billing and support, are not considered allowable hours; there will be no reimbursement for these hours.

Reimbursement for overtime hours will be limited to time spent on this project in excess of forty hours per week. Any variations to this rule should be included in the price proposal. All overtime must have prior approval from the MDOT project manager.